IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A lithographic apparatus comprising:

an illumination system configured to provide a beam of radiation;

a support structure configured to hold a patterning device, the patterning device configured to impart the beam with a pattern in its cross-section;

a substrate table configured to hold a substrate;

a projection system configured to project the patterned beam onto a target portion of the substrate;

a first liquid supply system configured to at least partially fill a space between the projection system and the substrate table, with a first liquid; and

a measurement system configured to measure a location of each of a plurality of points on the substrate, the measurement system being arranged such that measurements take place through a second liquid, the second liquid not being supplied by the first liquid supply system.

2. (Original) Apparatus according to claim 1, further comprising a second liquid supply system configured to at least partially fill a space between the measurement system and the substrate table, with the second liquid.

3. (Original) Apparatus according to claim 2, wherein the first liquid supply system and the second liquid supply system have the same liquid source.

4. (Original) Apparatus according to claim 2, wherein the second liquid supply system comprises a seal member extending along at least part of the boundary of the space between the measurement system and the substrate table.

5. (Original) Apparatus according to claim 4, wherein the seal member forms a closed loop around the space between the measurement system and the substrate table.

6. (Original) Apparatus according to claim 4, wherein the second liquid supply system further comprises a seal configured to form a seal between the seal member and the surface of the substrate.

7. (Original) Apparatus according to claim 6, wherein the seal is a gas seal, a hydrostatic seal or a hydrodynamic seal.

8. (Original) Apparatus according to claim 1, wherein the first liquid supply system comprises a seal member extending along at least a part of the boundary of the space between the projection system and the substrate table.

9. (Original) Apparatus according to claim 8, wherein the seal member forms a closed loop around the space between the projection system and the substrate table.

10. (Original) Apparatus according to claim 8, wherein the first liquid supply system further comprises a seal configured to form a seal between the seal member and the surface of the substrate.

11. (Original) Apparatus according to claim 10, wherein the seal is a gas seal, a hydrostatic seal or a hydrodynamic seal.

12. (Original) Apparatus according to claim 1, wherein the measurement system comprises a level sensor configured to measure a height, tilt or both of each of a plurality of points on the substrate.

13. (Original) Apparatus according to claim 12, wherein the measurement system comprises an alignment system configured to measure a position of each of a plurality of alignment marks on the substrate.

14. (Original) Apparatus according to claim 1, wherein the measurement system comprises an alignment system configured to measure a position of each of a plurality of alignment marks on the substrate.

15. (Original) Apparatus according to claim 1, wherein the substrate table has a reference and the measurement system measures a location of the reference.

16. (Original) Apparatus according to claim 15, wherein the reference comprises a transmission image sensor.

17. (Original) Apparatus according to claim 15, wherein the measurement system is configured to measure a location of each of a plurality of alignment marks on the substrate relative to the reference of the substrate table.

18. (Original) Apparatus according to claim 1, comprising an exposure station and a separate measurement station, the projection system being provided at the exposure station and the measurement system being provided at the measurement station and the substrate table being movable between the exposure and measurement stations.

19. (Original) Apparatus according to claim 18, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

20. (Original) Apparatus according to claim 18, comprising a plurality of substrate tables, each movable between an exposure station and a measurement station.

21. (Original) Apparatus according to claim 20, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

22. (Original) A lithographic apparatus comprising:

an illumination system configured to provide a beam of radiation;

a support structure configured to hold a patterning device, the patterning device configured to impart the beam with a pattern in its cross-section;

a substrate table configured to hold a substrate;

a projection system configured to project the patterned beam onto a target portion of the substrate;

a measurement system configured to measure a location of each of a plurality of points on the substrate using a measurement beam; and

a liquid supply system configured to at least partially fill a space between the projection system and the substrate table and a space between the measurement system and the substrate table with a liquid,

wherein the measurement system is arranged such that the substrate table cannot simultaneously be in the path of the projection beam and the measurement beam.

23. (Original) Apparatus according to claim 22, wherein the liquid filled in the space between the projection system and the substrate table and the liquid filled in the space between the measurement system and the substrate table have the same liquid source.

24. (Original) Apparatus according to claim 22, wherein the liquid supply system comprises a seal member extending along at least part of the boundary of the space between the measurement system and the substrate table, of the space between the projection system and the substrate table, or both.

25. (Original) Apparatus according to claim 24, wherein the seal member forms a closed loop around the space.

26. (Original) Apparatus according to claim 24, wherein the liquid supply system further comprises a seal configured to form a seal between the seal member and the surface of the substrate.

27. (Original) Apparatus according to claim 26, wherein the seal is a gas seal, a hydrostatic seal or a hydrodynamic seal.

28. (Original) Apparatus according to claim 22, wherein the measurement system comprises a level sensor configured to measure a height, tilt or both of each of a plurality of points on the substrate.

29. (Original) Apparatus according to claim 28, wherein the measurement system comprises an alignment system configured to measure a position of each of a plurality of alignment marks on the substrate.

30. (Original) Apparatus according to claim 22, wherein the measurement system comprises an alignment system configured to measure a position of each of a plurality of alignment marks on the substrate.

31. (Original) Apparatus according to claim 22, wherein the substrate table has a reference and the measurement system measures a location of the reference.

32. (Original) Apparatus according to claim 31, wherein the reference comprises a transmission image sensor.

33. (Original) Apparatus according to claim 31, wherein the measurement system is configured to measure a location of each of a plurality of alignment marks on the substrate relative to the reference of the substrate table.

34. (Original) Apparatus according to claim 22, comprising an exposure station and a separate measurement station, the projection system being provided at the exposure station and the measurement system being provided at the measurement station and the substrate table being movable between the exposure and measurement stations.

35. (Original) Apparatus according to claim 34, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

36. (Original) Apparatus according to claim 34, comprising a plurality of substrate tables, each movable between an exposure station and a measurement station.

37. (Original) Apparatus according to claim 36, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

38. (Original) A device manufacturing method comprising:

measuring a location of each of a plurality of points on a substrate using a measurement beam projected from a measurement system, the measurement taking place through a liquid but not through a liquid supplied between the substrate and a projection system; and

projecting a patterned beam of radiation, through the liquid supplied between the substrate and the projection system, onto a target portion of the substrate.

39. (Original) Method according to claim 38, comprising at least partially filling a space between the measurement system and the substrate, between the projection system and the substrate, or both with a liquid.

40. (Original) Method according to claim 39, wherein a liquid supplied between the measurement system and the substrate and between the projection system and the substrate has the same liquid source.

41. (Original) Method according to claim 39, comprising sealing at least part of the boundary of the space between the measurement system and the substrate, the boundary of the space between the projection system and the substrate, or both.

42. (Original) Method according to claim 41, wherein the sealing is a gas seal, a hydrostatic seal or a hydrodynamic seal.

43. (Original) Method according to claim 38, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a height, tilt or both of each of a plurality of points on the substrate.

44. (Original) Method according to claim 43, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a position of each of a plurality of alignment marks on the substrate.

45. (Original) Method according to claim 38, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a position of each of a plurality of alignment marks on the substrate.

46. (Original) Method according to claim 38, comprising measuring a location of a reference of a substrate table holding the substrate.

47. (Original) Method according to claim 46, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a location of each of a plurality of alignment marks on the substrate relative to the reference of the substrate table.

48. (Original) Method according to claim 38, comprising moving the substrate between an exposure station and a separate measurement station, the projection system being provided at the exposure station and the measurement system being provided at the measurement station.

49. (Original) Method according to claim 48, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

50. (Original) Method according to claim 48, comprising moving each of a plurality of substrate tables between an exposure station and a measurement station.

51. (Original) Method according to claim 50, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

52. (Original) A device manufacturing method comprising:

measuring a location of each of a plurality of points on a substrate using a measurement beam projected, from a measurement system, through a liquid between the measurement system and the substrate; and

projecting a patterned beam of radiation through a liquid onto a target portion of the substrate,

wherein the patterned beam and measurement beam are arranged such that the substrate is not simultaneously in the path of the patterned beam and the measurement beam.

53. (Original) Method according to claim 52, comprising at least partially filling a space between the measurement system and the substrate, between a projection system and the substrate, or both with a liquid.

54. (Original) Method according to claim 53, wherein a liquid supplied between the measurement system and the substrate and between the projection system and the substrate has the same liquid source.

55. (Original) Method according to claim 53, comprising sealing at least part of the boundary of the space between the measurement system and the substrate, the boundary of the space between the projection system and the substrate, or both.

56. (Original) Method according to claim 55, wherein the sealing is a gas seal, a hydrostatic seal or a hydrodynamic seal.

57. (Original) Method according to claim 52, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a height, tilt or both of each of a plurality of points on the substrate.

58. (Original) Method according to claim 57, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a position of each of a plurality of alignment marks on the substrate.

59. (Original) Method according to claim 52, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a position of each of a plurality of alignment marks on the substrate.

60. (Original) Method according to claim 52, comprising measuring a location of a reference of a substrate table holding the substrate.

61. (Original) Method according to claim 60, wherein the measuring a location of each of a plurality of points on a substrate comprises measuring a location of each of a plurality of alignment marks on the substrate relative to the reference of the substrate table.

62. (Original) Method according to claim 52, comprising moving the substrate between an exposure station and a separate measurement station, the projection system being provided at the exposure station and the measurement system being provided at the measurement station.

63. (Original) Method according to claim 62, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

64. (Original) Method according to claim 62, comprising moving each of a plurality of substrate tables between an exposure station and a measurement station.

65. (Original) Method according to claim 64, wherein the projection station and the measurement station are arranged such that a substrate cannot simultaneously be at the projection station and the measurement station.

66. (New) Apparatus according to claim 1, wherein said first liquid supply system is configured to at least partially fill a space between a final element of the projection system and the substrate table, with a first liquid.

67. (New) Apparatus according to claim 2, wherein said second liquid supply system is configured to at least partially fill a space between a final element of the measurement system and the substrate table, with the second liquid.

68. (New) Apparatus according to claim 22, wherein the liquid supply system is configured to at least partially fill a space between a final element of the projection system and the substrate table, with the liquid.

69. (New) Apparatus according to claim 22, wherein the liquid supply system is configured to at least partially fill a space between a final element of the measurement system and the substrate table, with the liquid.

70. (New) Method according to claim 38, comprising at least partially filling a space between a final element of the measurement system and the substrate, between a final element of the projection system and the substrate, or both with a liquid.

71. (New) Method according to claim 52, comprising at least partially filling a space between a final element of the measurement system and the substrate, between a final element of the projection system and the substrate, or both with a liquid.